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(71) Applicant: **HITACHI KOKI CO LTD**(72) Inventor: **FUTAYADA MASATERU  
SUDO JUNICHI  
SHINOHARA SHIGERU**

(74) Representative:

**(54) SOURCE VOLTAGE  
JUDGING CIRCUIT**

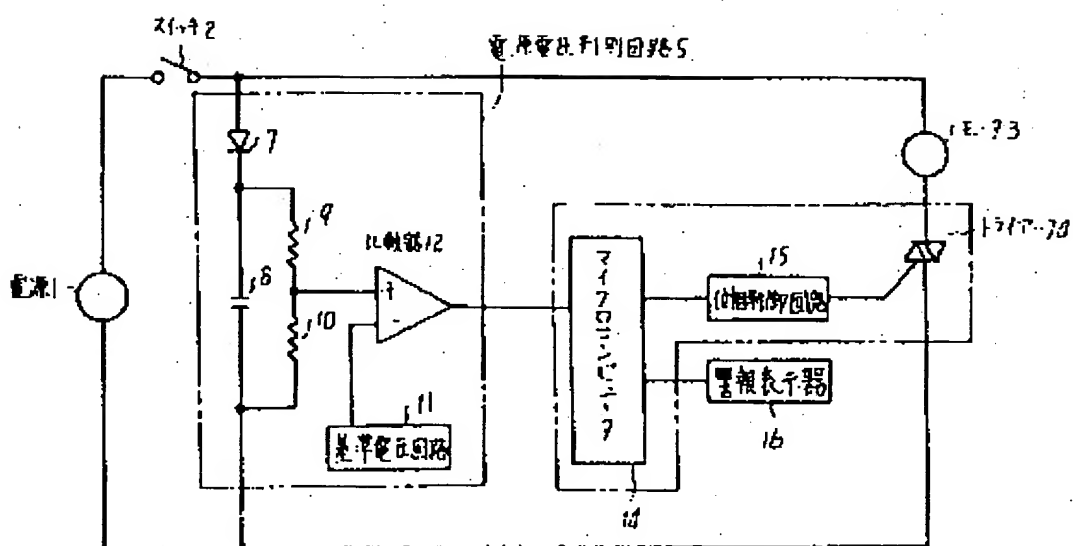
(57) Abstract:

**PURPOSE:** To protect apparatus by producing an output for interrupting a power supply when an input voltage exceeds a safety reference voltage of a motor or other electric apparatus.

**CONSTITUTION:** A diode 7 in a source voltage judging circuit 5 rectifies the voltage of a power supply 1 and charges a capacitor 8.

The charging voltage is divided by resistors 9, 10 and provided to a comparator 12 where it is compared with a reference voltage provided from a reference voltage circuit 11 to the other input terminal of the comparator 12. When the divided voltage exceeds the reference voltage, the comparator 12 produces a positive output voltage which is then transmitted to a microcomputer 14. The microcomputer 14 interrupts the operation of a phase control circuit 15 according to the positive voltage thus interrupting a triac 4 and the power supply for a motor 3. At the same time, the microcomputer 14 lights an alarm indicator 16 comprising a LED, for example, and indicates abnormal voltage of the power supply 1.

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